

Figure 1 consists of 12 sub-graphs, labeled (a) through (l), each showing the growth of *E. coli* O157:H7 in ground beef under different treatment conditions. The y-axis for all graphs is \log_{10} CFU/g, ranging from 0 to 10. The x-axis for all graphs is time in hours (h), ranging from 0 to 24. Graph (a) is the control, showing a steady increase in bacterial load from approximately 10^1 CFU/g at 0 hours to 10^{10} CFU/g at 24 hours. Graphs (b) through (l) show the effect of heating at 100°C for increasing durations: 15 min, 30 min, 45 min, 60 min, 90 min, 120 min, 150 min, 180 min, 210 min, 240 min, and 270 min, respectively. In all heated samples, the bacterial load is significantly reduced compared to the control. The reduction is most pronounced in the 100°C 15 min treatment (b), where the load drops to approximately 10^0 CFU/g. As the heating duration increases, the bacterial load remains low, with some samples showing a slight increase over time but staying below 10^1 CFU/g.

Methods of making and using microarrays of biological materials

The invention relates to methods of making arrays of anti-ligands for use in the analysis of ligands. Preferred ligands are proteins and preferred anti-ligands are antibodies, or antigen-binding variants or derivatives thereof. The microarrays of the invention provide a convenient means for analysing differential protein expression in cells.